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Records of *Aporodes floralis* HÜBNER, 1809 (Lepidoptera: Pyralidae) from Poland

ARTUR BARANOWSKI*, ZBIGNIEW MOCARSKI **, JACEK PŁOCICA ***, DARIUSZ WASILUK****

*Department of Animal Ecology, Nicolaus Copernicus University, Gagarina 9, 87-100 Toruń, Poland, e-mail: arturbar@starladesign.pl
**Zagajnikowa 14-16/7, 97-200 Tomaszów Mazowiecki, Poland
*** Jana Pawła II 23, 37-500 Jarosław, Poland
****Leśniczówka Huszlew 134, 08-206 Huszlew, Poland

ABSTRACT. Five new records of *Aporodes floralis* (HÜBNER 1809) are presented. The earlier Wize's data on its occurence in Poland are discussed. The genitalia of both sexes are described and illustrated. The biology, distribution in Europe and possible way of migration to Poland are also provided.

KEY WORDS: Lepidoptera, Pyralidae, *Aporodes floralis*, new records, migratory species, faunistics, Poland .

INTRODUCTION

Aporodes floralis (HÜBNER 1809) for the first time had been recorded from Poland by Wize (WIZE 1916) in the region of Jeżewo (UTM: XT55) as *Noctuelia floralis* HB., variety *stygialis* TR. Adamczewski in his publication (ADAMCZEWSKI 1950) treated critically all data given by Wize, because of lots of mistakes made by him in identification of recorded species. Unfortunately, today there is no possibility to verify the identification of *A. floralis*, because the collection of Wize disappeared during II World War. Only some species of his collection were preserved and those species were determined by Dr. J. KREMKY, who prepared only some notes (ADAMCZEWSKI 1950). His revision showed lots of mistakes made in the families: Tortricidae, Noctuide, Alucitidae and Geometridae. In the genus *Eupithecia* almost all species were wrongly identified. What is more, lots of mistakes were made not only between species similar in appearance, but even between genera and families. In addi-

tion to this, they concerned not only Microlepidoptera but Macrolepidoptera, too. Besides, some of them were identified as new to the Polish fauna in that time e.g. *Aporodes floralis* HÜBNER, 1809. As was previously stated, highly dubious Wize's recorded species were not taken into consideration by subsequent researches describing the Lepidoptera of Poland like: Fauna of Polish Lepidoptera (SCHILLE 1931), Checklist of Polish Animals (RAZOWSKI & RIEDL 1991), The Lepidoptera of Poland (BUSZKO & NOWACKI 2000) and The Lepidoptera of Europe (KARSHOLT & RAZOWSKI 1996). Taking everything into account, scientific worth of Wize's paper and identification of *Aporodes floralis* should be recognized as highly dubious or even false. Thus, the list of records of *A. floralis* mentioned below should be treated as the first true data about migration of this species to Poland.

DESCRIPTION, BIONOMICS AND DISTRIBUTION

Until now, 242 species of the Pyralidae have been confirmed to occur in Poland (BUSZKO & NOWACKI 2000) and 851 species in Europe (KARSHOLT & RAZOWSKI 1996). The genus *Aporodes* GUENÈE, 1854 belongs to the subfamily Odontiinae and it is represented in the European fauna by only 1 species *Aporodes floralis* HÜBNER, 1809. Biology of the species is recognized. Caterpillars feed on herbaceous plants: *Cynara cardunculus* and *Convolvulus arvensis*. The species is bivoltine, the adult appears form May to the beginning of October (SLAMKA 1997).

The male adult is presented on a photo on Fig. 1.

Fig. 1. *Aporodes floralis* (HÜBNER, 1809), male.

The male adult's wingspan is 15-20 mm. Forewing deep purple, suffused with blackish or greyish brown; cross-lines well defined. Basal streak is large, dark and rounded. First line, antemedial fascia is broken into irregular spots of which one in front edge is largest; medial fascia is short and blackish ochreous; wavy postmedian line is complete; near, there are two blackish disco-cellular spots; a weak, subterminal streak is ochreous; hindwing ochreous, with curved blackish brown postmedian line; cubital pecten not broad, long, reaches postmedian fascia; basal half with one broad purplish streak; ochreous subterminal band at back edge twice bent, merged with subbasal dark purple line in front edge.

Male genitalia (Figs 2, 3) show short sharp, acute uncus; valva simple, very broad, the tip of the valve is rounded, very heavily sclerotized, basal with a lobe; disk hairy; ventral parts of pedunculi broad; gnathos short; tegumen broad; anal tube juted; vinculum arms broad, fully developed, in the middle dented; sacculus with dorsal plate-shaped sclerite; transtila well developed, sclerotized; juxta simple; aedeagus broad, curved and bubbled in the middle; coecum penis large; cornuti, a long row of small spine; caulis small.

Female genitalia (Fig. 4) show short papillae anales; apical areas with not very short but thick bristles; apophyses anteriores longer than apophyses posteriores; colliculum long and slender; ductus bursae long, narrow, bubbled near bursa copulatrix; corpus bursa oval, widening posteriorly, unsclerotized; signum absent.

Aporodes floralis is known from southern Europe form the Iberian Peninsula through France, Malta, Italy, Yugoslavia, Albania, Greece to the Black Sea – Bulgaria, Romania and islands in the Mediterranean Sea – Corsica, Sardinia, Sicily, Cyprus. There, it appears abundantly. In the Central Europe it has been recorded from Austria, Hungary, Germany, Czech Republic and Slovakia. In the Carpathians, it appears rarely. In Poland it was not noticed (SPEIDEL 1996). In northern parts of Central Europe it appears as a migrant species only in long warm summers - in suitable environmental conditions. In Poland it was recorded twice in 2002 and 2003. Most probably, the examined Polish specimens represent the second generation of the moths, which developed from the newcomers (first brood) from the south. In the areas of appearance, a particular habitat preference of the moth was not noticed. One specimen was caught in a light trap placed at 18 meters on Quercus sp. tree in the Las Piwnicki forest, which suggested that migration through the forest's territory takes place above tree tops. Anther migratory species was caught in the same light trap, so it can confirm that hypothesis (BARANOWSKI et al. 2004). Furthermore, the record in Las Piwnicki reserve near Toruń in Poland is the northernmost locality of this species in Central Europe; previously it was known from sites in Slovakia, Czech Republic and Germany. Finally, all five localities of caught specimens can indicate the direction of migration to North Europe from the East, avoiding the way through the Carpathians, which is shown on the map (Fig. 5).

Material examined

Six specimens were caught by the authors in 2002 and 2003 in different regions in Poland (Fig. 5). Material was collected on the following sites:

10 VII 2002 1 male, Rez. Las Piwnicki UTM: CD 38, Kujawsko-Pomorskie Province, Poland, light trap (250 V) placed at 18 meters on Quercus sp. tree in the forest (leg., coll. A. Baranowski); 01 VIII 2002 1 male, Woźniki UTM: FC 28, Podlaskie Province, Poland (leg. D. Wasiluk, coll. A. Baranowski); 04 VII 2003 1 os. Jarosław UTM: FA 24, Podkarpackie Province, Poland (leg., coll. J. Płocica); 30 VII 2003 2 os. Makowa UTM: FA 20, Podkarpackie Province, Poland (leg., coll. J. Płocica); 01 VIII 2003 1 os. Rez. Błogie UTM: DB 39, Łódzkie Province, Poland (leg., coll. Z. Mocarski),

The examined specimens are housed in the authors' collections

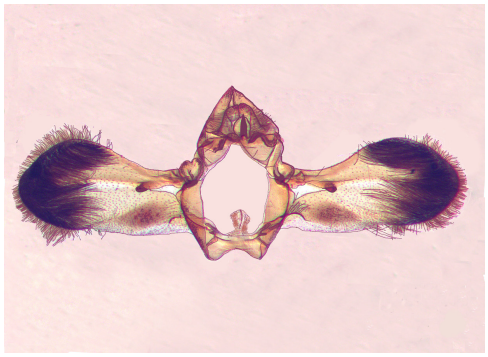

Fig. 2. Male genitalia of *Aporodes floralis* (HÜBNER, 1809).

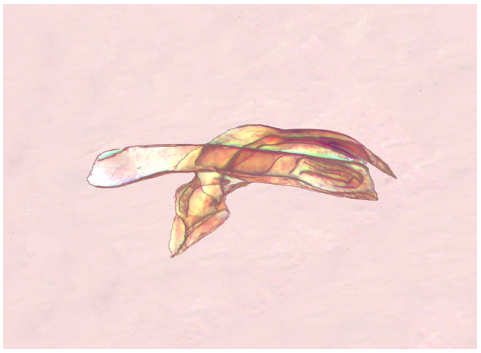

Fig. 3. Aedeagus of *Aporodes floralis* (HÜBNER, 1809).

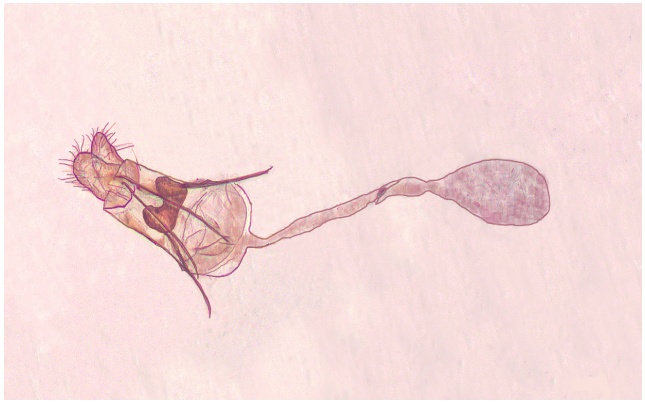

Fig. 4. Female genitalia of *Aporodes floralis* (HÜBNER, 1809).

Fig. 5. The map with records of *Aporodes floralis* (HÜBNER, 1809). Dark dot – new records detailed locality: 1 – Las Piwnicki reserve, 2 – Woźniki, 3 – Błogie reserve, 4 – Jarosław, 5 – Makowa. Question mark circled – locality in Jeżewo given by Wize. Arrows – suggested direction of migration.

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